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10/786,116	02/26/2004	Toshihiro Kobayashi	00862.023492.	1851
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FITZPATRICK CELLA HARPER & SCINTO			LOVEL, KIMBERLY M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/786,116	KOBAYASHI ET AL.
	Examiner	Art Unit
	KIMBERLY LOVEL	2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 29 January 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1 and 11-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1 and 11-13 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Response to Amendment

1. Claims 1 and 11-13 are currently pending and claims 2-10 and 14-17 are cancelled.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 January 2009 has been entered.

Claim Objections

3. Claims 1 and 11-13 are objected to because of the following informalities:

Each of the claims recite the concept of type information which includes as a first type and a second type. It is unclear from the specification, exactly what the applicant intends for the type information to relate to.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. It is noted that according to pages 6 and 7 of the Remarks, at least the holding unit of the apparatus comprises of hardware or a combination of hardware and software.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 1 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 7,062,532 to Sweat et al (hereafter Sweat et al) in view of US Patent No. 5,933,825 to McClaughry et al (hereafter McClaughry et al) in view of US Patent No 6,529,905 to Bray et al in view of US Patent No 7,249,314**

to Walker et al (hereafter Walker) in view of US Patent No. 6,215,495 to Grantham et al (hereafter Grantham et al).

Referring to claim 1, Sweat et al disclose an information processing method [method for a project hosting service that a user can communicate and collaborate with members of a design team] for setting an exclusive control right of a data item by a specific process in a system [a user can download files to work on them, while locking the file to prevent others from overwriting the file] in which a plurality of processes that can communicate with each other [a user communicates with other users] (see abstract) via an information transmission medium [Internet] share data including a plurality of data items, wherein each of the plurality of data items has type information indicating that the respective data item belongs to a first type or a second type, and wherein, when the first type is indicated by the type information, an exclusive control right is set to the specific process for the data item and all data items belonging to a lower layer of the data item when no exclusive control right is set for the data item and all data items, and wherein, when the second type is indicated by the type information, the exclusive control right is set to the specific process for data items for which no exclusive control right is set, of the designated data item and all data items belonging to a lower layer of the data item, (see column 3, lines 12-35) said method comprising:

a first designation step [locking a file] of designating a data item [a selected file] for which the exclusive control right [locking a file by Administrators or Editors – since locking a file prevents other project members from editing the file, a lock is considered

to represent an exclusive control right given to Administrators and Editors] is to be set (see column 15, lines 23-26).

However, Sweat et al fail to explicitly disclose the further limitations of a retrieval step, a determination step and a setting step. McClaughry et al disclose a method for applying locks to files wherein a plurality of processes share data items (see abstract), including the further limitations of:

a retrieval step of retrieving a data item [folders B and C and files D, E, F and G] which belongs to a lower layer of the data item [folder A] designated in the first designation step on the basis of hierarchical structure information of the plurality of data items (see column 8, lines 45-48 – the children of folder A are retrieved);

a determination step of determining whether or not an exclusive control right by another process is set, for each data item in the retrieval step (McClughry et al: see column 5, lines 36-58 and column 5, line 59 – column 6, line 14); and

a setting step of:

when the designated data item is indicated as the first type by the type information, setting the exclusive control right for the specific process as to the designated data item (see column 8, lines 44-45 – a WK lock is acquired for folder A) and as to a retrieved data item retrieved in said retrieval step (see column 8, lines 59-60 – an RC lock is acquired for the children of folder A) only if no exclusive control right is set by other processes for the designated data item and all of the retrieved data items (see column 5, line 41 – column 6, line 14); and

when the designated data item is indicated as the second type by the type information, setting the exclusive control right for the specific process as to the designated data item and as to the data items for which it is determined in said determination step that an exclusive control right by another process is not set (see column 5, line 58 – column 6, line 14 – determining if the lock is available and if so, acquiring the lock) in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize McClaughry et al's method of retrieving children in a hierarchy of objects and applying the same control rights as the parent as a subcomponent to Sweat et al's method for determining an object in which a control right is to be set. One would have been motivated to do so in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes (Sweat et al: see column 1, lines 34-37).

The combination of Sweat and McClaughry (hereafter Sweat/McCloughry) fails to explicitly disclose the limitation of not setting the exclusive control right for the specific process as to all designated data items and a retrieved data item in said retrieval step if the exclusive control right is set by another process for at least one of the designated items and all of the retrieved data items. Bray discloses the concept of update locks in a hierarchical data structure, including the further limitation of not setting the exclusive control right for the specific process as to all designated data items and a retrieved data

item in said retrieval step if the exclusive control right is set by another process for at least one of the designated items and all of the retrieved data items [if any of the target's child nodes are locked with any kind of lock, the edit lock is denied] (see column 7, lines 13-32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the rules for setting a lock disclosed by Bray with the steps of Sweat/McCloughry. One would have been motivated to do so in order to enhance concurrency control of the objects.

While the combination of Sweat/McCloughry and Bray (hereafter Sweat/McCloughry/Bray) discloses a second designation step of designating a data item [folder A] for which the exclusive control right is to be released (McCloughry et al: see column 9, lines 16-21 – the move operation designates the desire to obtain a second Write Children (WK) lock on folder A) and a first release step of releasing the exclusive control right of the specific process as to the designated data item and data items which are related to the data item designated in the second designation step and are retrieved in the retrieval step (McCloughry et al: see column 9, lines 7-15 – a Write Children (WK) lock is acquired on folder A; after acquiring the WK lock, a Read Contents (RC) lock is obtained on item C; next the WK lock is released), Sweat/McCloughry/Bray fails to explicitly disclose the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the

exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step. Walker discloses a second designation step of designating a desired data item for which the exclusive control right is to be released, including the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step [releasing child containers before releasing the parent container] (see column 44, lines 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Walker's feature of releasing the lock on the subtree of the target node when releasing the lock on the target node with the step for releasing the lock disclosed by Sweat/McClughry/Bray. One would have been motivated to do so in order to ensure data integrity while, at the same time, minimizing the scope of the data locking to maximize the amount of the data structure available to other users.

Sweat/McClughry/Bray/Walker discloses assigning control rights to data items in a hierarchy, however, Sweat/McClughry/Bray/Walker fails to explicitly disclose the further limitation wherein the data is a scene graph database, which is referred to upon generation of computer graphics of a virtual space. Grantham et al also disclose assigning control rights to data items in a hierarchy (see abstract and column 7, lines 49-54), including the further limitation wherein the data is a scene graph database which

is referred to upon generation of computer graphics of a virtual space (see column 4, lines 17-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Grantham et al's scene graph database as the data described by Sweat/McClughry/Bray/Walker. One would have been motivated to do so in order to provide since the method of Sweat/McClughry/Bray/Walker can apply to any database (Sweat et al: see column 3, lines 52-55).

Referring to claim 11, Sweat et al disclose an information processing apparatus [method for a project hosting service that a user can communicate and collaborate with members of a design team] for setting an exclusive control right of a data item by a specific process in a system [a user can download files to work on them, while locking the file to prevent others from overwriting the file] in which a plurality of processes that can communicate with each other [a user communicates with other users] (see abstract) via an information transmission medium [Internet] share data including a plurality of data items (see column 3, lines 12-35) wherein each of the plurality of said data items has type information indicating that the respective data item belongs to a first type or a second type, and wherein, when the first type is indicated by the type information, an exclusive control right is set to the specific process for the data item and all data items belonging to a lower layer of the data item when no exclusive control right is set for the data item and all data items, and wherein, when the second type is indicated by the type information, the exclusive control right is set to the specific process for data items for which no exclusive control right is set, of the designated data item and all data items

belonging to a lower layer of the data item, (see column 3, lines 12-35), said apparatus comprising:

 a holding unit [ProjectPoint contains projects] for holding hierarchical structure information of the plurality of data items (see column 3, line 57 – column 4, line 26);
 a first designation step [locking a file] of designating a data item [a selected file] for which the exclusive control right [locking a file by Administrators or Editors – since locking a file prevents other project members from editing the file, a lock is considered to represent an exclusive control right given to Administrators and Editors] is to be set (see column 15, lines 23-26).

 However, Sweat et al fail to explicitly disclose the further limitation of a setting unit. McClaughry et al disclose a method for applying locks to files wherein a plurality of processes share data items (see abstract), including the further limitation of a setting unit for setting, when the first type is indicated by the type information, the exclusive control right to the specific process for the data item and all data items belonging to a lower layer of the data item when no exclusive control right is set for the data item and all data items, and, when the second type is indicated by the type information, setting the exclusive control right to the specific process for data items for which no exclusive control right is set, of the designated data item and all data items belonging to a lower layer of the data item (see column 5, lines 35-48; column 5, line 59 – column 6, line 14; and column 8, lines 44-48 – a WK lock is acquired for folder A) and a data item which is related to the designated data item; an RC lock is acquired for the children of folder A; the children of folder A are retrieved).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize McClaughry et al's method of retrieving children in a hierarchy of objects and applying the same control rights as the parent as a subcomponent to Sweat et al's method for determining an object in which a control right is to be set. One would have been motivated to do so in order to provide a mechanism for administrators and users to organize and set access permissions to a hierarchy of data items utilized by a plurality of processes (Sweat et al: see column 1, lines 34-37).

The combination of Sweat/McCloughry fails to explicitly disclose the limitation of not setting the exclusive control right for the specific process as to all designated data items and a retrieved data item in said retrieval step if the exclusive control right is set by another process for at least one of the designated items and all of the retrieved data items. Bray discloses the concept of update locks in a hierarchical data structure, including the further limitation of not setting the exclusive control right for the specific process as to all designated data items and a retrieved data item in said retrieval step if the exclusive control right is set by another process for at least one of the designated items and all of the retrieved data items [if any of the target's child nodes are locked with any kind of lock, the edit lock is denied] (see column 7, lines 13-32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the rules for setting a lock disclosed by Bray with the steps of Sweat/McCloughry. One would have been motivated to do so in order to enhance concurrency control of the objects.

While Sweat/McClughry/Bray discloses a second designation step of designating a data item [folder A] for which the exclusive control right is to be released (McClughry et al: see column 9, lines 16-21 – the move operation designates the desire to obtain a second Write Children (WK) lock on folder A) and a first release step of releasing the exclusive control right of the specific process as to the designated data item and data items which are related to the data item designated in the second designation step and are retrieved in the retrieval step (McClughry et al: see column 9, lines 7-15 – a Write Children (WK) lock is acquired on folder A; after acquiring the WK lock, a Read Contents (RC) lock is obtained on item C; next the WK lock is released)), Sweat/McClughry/Bray fails to explicitly disclose the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in said second designation step. Walker discloses a second designation step of designating a desired data item for which the exclusive control right is to be released, including the further limitation of a first release step of releasing the exclusive control right of the specific process as to the data item designated in said second designation step and a data item which belongs to a lower layer of the data item designated in said second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an

upper layer of the data item designated in said second designation step (see column 44, lines 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Walker's feature of releasing the lock on the subtree of the target node when releasing the lock on the target node with the step for releasing the lock disclosed by Sweat/McClaughry/Bray. One would have been motivated to do so in order to ensure data integrity while, at the same time, minimizing the scope of the data locking to maximize the amount of the data structure available to other users.

Sweat/McClaughry/Bray/Walker discloses assigning control rights to data items in a hierarchy, however, Sweat/McClaughry/Bray/Walker fails to explicitly disclose the further limitation wherein the data is a scene graph database, which is referred to upon generation of computer graphics of a virtual space. Grantham et al also disclose assigning control rights to data items in a hierarchy (see abstract and column 7, lines 49-54), including the further limitation wherein the data is a scene graph database which is referred to upon generation of computer graphics of a virtual space (see column 4, lines 17-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Grantham et al's scene graph database as the data described by Sweat/McClaughry/Bray/Walker. One would have been motivated to do so in order to provide since the method of Sweat/McClaughry/Bray/Walker can apply to any database (Sweat et al: see column 3, lines 52-55).

Referring to claim 12, Sweat/McClaughry/Bray/Walker and Grantham discloses a control program [software] stored in a computer-readable storage medium for making a computer execute an information processing method of claim 1 (Sweat et al: see column 3, lines 36-39).

Referring to claim 13, Sweat/McClaughry/Bray/Walker and Grantham discloses a storage medium storing a control program for making a computer execute an information processing method of claim 1 (Sweat et al: see column 3, lines 27-35).

Response to Arguments

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/
Supervisory Patent Examiner, Art Unit 2167

/Kimberly Lovel/
Examiner
Art Unit 2167

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/KL/

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